CLAIMS

1. A system for the formation of a layering of electronically-interactive liquefied material, which is solidified /polymerised, on a support surface formed by a sheet/card (S), characterised by the fact that:

- a computer controlled machine is used, with a mobile support bed which goes backwards and forwards (2, 20, Y) with a transversal bridge passing over it and which has transversal guide means for the alternate transversal movement, above the said mobile support bed, of a distribution unit for the material (3), in which there is a distribution means for point-type sprays (31) at programmed differential pressure, equipped with a series of punctiform nozzles to distribute respective points of the liquefied material, which correspond to pixels, in a controlled, programmed way;
- the said sheet/card (S) is fastened on the surface of the said mobile support bed (2), and

(i) the said mobile support bed (2), on which there is the said sheet/card (S), is moved forward (Y) according to the program below the said bridge and below the said distribution unit (3);

(ii) the said distribution unit (3) is moved transversally above the said sheet/card (S), and the said distribution means deposits, by means of points (31), and according to a programmed design, at least one layer of the said electronically-interactive material, with differentiation of the distribution pressure of the said liquefied material at two different values p1 and p2, where:

"p1" is the pressure at the start of the distribution and depositing phase, and

"p2" is the continuous pressure during the distribution of the deposit, wherein

p1>p2;

- phases (i) and (ii) being repeated until the whole of the required surface interested area of the said support sheet/card (S) is covered, and being provided further means that, during the non-operational phase, are able to apply a supply pressure "p3" > "p1" in order to clean a respective filtering system in the feeding system of the said liquefied distribution-depositing material.

2. A system according to the previous claim, characterised by the fact that, to the side of the said distribution means for point-type sprays (31), there is an ultra-violet ray head which is suitable for polymerising the said electronically-interactive liquefied distribution-depositing material.

3. A system according to the previous claim 2. , characterised by the fact that the said ultra-violet polymerisation head is electronically controllable to supply the energy required to fix the said material on the said support (S).

4. A system according to the previous claims, characterised by the fact that, to the side of the said distribution means for point-type sprays (31), there is an ultrasonic distance sensor (32) which detects the distance of the said distribution means (3) from the depositing surface on the said sheet/card (S), and which transmits the respective data to the computerised means which controls the movement of the said distribution means (3).

5. A system according to the previous claims, characterised by the fact that, to the side of the said distribution means for point-type

AMENDED SHEET

sprays (31), a television camera (33) is installed, which has the function of controlling and fine tuning the start, and checking the regularity and conclusion of the distribution-depositing operation.

6. Computer controlled machine for the depositing of a liquefied electronically-interactive material on a sheet/card (S), for implementing the system according to the previous claims, characterised by the fact that it includes:

- a base (1) to support the mobile bed (2) which is moved longitudinally (Y) by means of a worm screw (20) whose movement is controlled by a computer, and for the support and fixing of the said sheet/card "S" on which the layer of electronically-interactive material is to be formed;
- a bridge above the said base with a transversal shaft (30) which also has a worm screw, to move a distribution unit for the electronically-interactive material to be deposited (3) in an orthogonal direction (X) controlled by the said computer;
- the said distribution unit (3), with a pressurised distribution means with a series of nozzles for pixel punctiform sprays, fed by a buffer container (6) and above with the fed liquid material in the lower part "L" and air chamber "A", while to the side there is a pressure balance and regulation chamber (5) with its feed line (51) on the bottom (L) of the said buffer, and supply of the said liquid material from a feeder container-tank (4), where all of these containers (4, 5 and 6) have an agitation means and in which, the said pressure balance and regulation chamber (5) has a level indicator (51) and is guided parallel to the said distribution means for point-type sprays (31) when rising and lowering, and in which there are means for varying and regulating the height of the said

AMENDED SHEET

pressure balance and regulation container (51) to increase or reduce the pressure on the said buffer container either positively or negatively due to the difference in the level in a regulated way.

7. A computer controlled machine according to the previous claim 6, characterised by the fact that the said feed container –tank (4) includes a connection to a tank (7) located at the side and which is covered by the said distribution means for point-type sprays (31), so that the said liquid material is able to be recovered and recycled at a recycle pressure of "p3", which is higher than the said distribution-depositing pressures "p1" and "p2", to carry out a cleaning cycle of the respective filtering means located upstream of the nozzles in the said distribution means.

8. A computer controlled machine according to claims 6 and/or 7, characterised by the fact that the said punctiform spray nozzles are positioned in a longitudinal direction (Y) with respect to the direction of movement of the said bed (2) in at least one row.

9. A computer controlled machine according to claims 6 to 8, characterised by the fact that the said punctiform spray nozzles are positioned in a longitudinal direction (Y) with respect to the direction of movement of the said bed (2) in a number of rows.

10. A computer controlled machine according to any of the previous claims 6-9, characterised by the fact that, to the side of the said distribution means, there are:

- cooled means for transmitting ultra-violet rays for polymerising the said material which is deposited (34);
- means for controlling the distance from the surface to be deposited (32) and
- a television camera (33),

which are all connected interactively to send their respective data to the machine's microprocessor in order to carry out the respective control operations according to the program.

11. A computer controlled machine according to any of the previous claims 6-10, characterised by the fact that it has more than one distribution device (3) in the distribution unit for materials with differentiated electronically-interactive characteristics, among which at least one is actively electronically-interactive and one is non-actively electronically-interactive, or an insulator.